

More careful observation shows the plain, at first so simple in appearance, to be of complex form. Its conical convexity, indicated on the map by radiation of distributaries, may be demonstrated by watching a rider who crosses its lines disappear as does a ship at sea, whereas one passing straight down the slope will slowly fade into the heat waves of mirage. Our map shows it to be a characteristic subaerial delta with the general outlines of a fan, encroached upon by dunes from the north. Except for about 2 miles from its apex, it is everywhere bounded by dunes, without which its radius would be over 10 miles, as prolongations of bare clay still reach that far into the desert. At present outlying sandhills stand 4 miles north of the apex, while its greatest width is but 5 miles. Careful study of the surface proves it by no means that of an even cone. It is everywhere broken with irregularities wrought by man; canals long since abandoned, mounds, and roadways, and most significant are its areas of many hundred acres several feet above the general surface, a difference caused by man's control of alluviation, concentrating the stream with its depositions into limited areas of cultivation. These areas of concentrated deposition are bounded on the lower side with long bluffs varying up to 4 feet in height and of irregular plan, as shown on the map (fig. 486 and plate 65).

For more complete explanation of these zones of concentrated deposition we may look to its present distribution. Except during exceptional flood, all the water of Anau Su is led into a system of canals irrigating fields with low dams on their down-slope sides. An irrigated area thus comprises a system of fields bounded round the lower side by an irregular, often more or less crescent-shaped, dam and merges above into the plain. This dam or dike may be only a foot or two in height, but it is always easier to rebuild or patch up the old one than to make it in a new place, so that a permanent barrier to deposition may exist for centuries on the lower border of irrigation; and since the whole stream is consumed in these areas, its depositions are concentrated therein and accumulate in the form of what we may term "irrigation terraces." All phases of this process may be observed in the Turkoman grain-fields of to-day. We thus have an ancient delta surface surmounted by irrigation sediments concentrated into terraces near its apex. If man, their controlling factor, for any reason abandons them to carry on his agriculture elsewhere, they show their instability with the first flood; water-gates burst and dikes are rent by the stream thus set free to rush over terraces, falling down bluffs and gullying back. In the course of a score or so of years this channel will be carved to base-level and the excavated terrace material lie spread over the delta beyond.

Pronounced irrigation terraces result only where a fixed area has been continuously irrigated for a long time, and so the outlying, more erratically cultivated areas, comprising a large portion of the Anau delta, have aggraded in a less differentiated or more uniform way. The non-observant might cross such a terraced plain with never a doubt as to its uniformity. A sloping and often round-worn bluff, only 2 or 3 feet high and irregular in course, running perhaps a half mile and fading at either end into the plain, does not ordinarily arrest the eye nor does such a slight difference of level between two wide adjacent areas. To the